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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/472,534	12/27/1999	ANTHONY MAZZURCO	036560.6630	8878

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INTELLECTUAL PROPERTY DEPARTMENT  
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EXAMINER

JAGANNATHAN, MELANIE

ART UNIT PAPER NUMBER

2666

DATE MAILED: 03/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



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EXAMINER
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ART UNIT	PAPER
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**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/472,534

Applicant(s)

MAZZURCO ET AL.

Examiner

Melanie Jagannathan

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 December 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 12, 14 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claim 8 is objected to because of the following informalities: Examiner suggests inserting "fast facility protection (FFP)" in the place of "FFP". Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1,6-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Tounai et al. U.S. 5,870,382.

Regarding claims 1,8,10, the claimed receiving an inbound working channel and an inbound protection channel at an input interface is anticipated by switch (Figure 1, element 4) receiving working line (element 1A) and protection line (element 2A). The claimed determining

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a signal quality of the inbound working and protection channels and selecting one of inbound working and protection channels in response to signal quality is anticipated by control means (element 5) generating automatic protection scheme and having of function of detecting various alarms for when a failure occurs. See column 3, lines 42-59. The claimed providing the selected one of inbound working and protection channels to switching matrix is anticipated by switch (element 4). See column 3, lines 34-36.

Regarding claim 6, the claimed network protection being a 1+1 linear APS protection scheme is anticipated by use of the bi-directional of the 1+1 method. See column 7, lines 8-9.

Regarding claim 7, the claimed bi-directional line switched ring protection implementing span switch is anticipated by use of the bi-directional of the 1+1 APS method with switch for selecting working or protection line and SONET rings (Figures 16 and 33).

Regarding claim 9, the claimed receiving of control signal determining the selection of one of the inbound working and protection channels is anticipated by control mean (element 5) generating automatic protection scheme.

Regarding claim 10, the claimed maintaining of connections in the switching matrix regardless of selection of one of inbound working and protection channels is anticipated by switching allowed after failure in order for no loss of data during switchover from working to protection line. See column 6, lines 59-65.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 2,3,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tounai in view of Dempsey U.S. 6,526,021.

Regarding claims 2,3,13, Tounai discloses all the limitations of the claims except for claimed receiving of plurality of inbound working channels and protection channel and providing a protection switch request. Dempsey discloses a 1:N protection configuration (Figure 1) where there are N working channels and one protection channel. The claimed selecting of plurality of inbound working channels and inbound protection channel and providing traffic is disclosed in if working channel fails, traffic is switched to protection channel. See column 5, lines 45-60. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to include a plurality of working channels and a protection channel for a 1:N protection scheme. One of ordinary skill in the art would be motivated to do this for protection against failure involving more than one data channel.

6. Claims 4,5,11,12,14,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tounai in view of Ishiwatari U.S. 6,201,788.

Regarding claims **4,5,12,14,15**, Tounai discloses an outbound working channel and outbound protection channel (Figure 1, element 1B and 2B) but does not disclose switching the inbound working channel to the outbound protection channel and switching the inbound protection channel to the outbound working channel thus preventing information from being provided to the switching matrix. Ishiwatari discloses a SONET network (Figure 9A) implementing an automatic protection scheme for when a fault occurs on an optical fiber cable of the system (Figure 9A, element 11<sub>1</sub>) where loop-back formation is made such that the working channels in fiber cable (Figure 9B, element 11<sub>1</sub>) via signals are received from transmission device (Figure 9B, element 10C) are coupled to the protection channels (element 11<sub>2</sub>) via which signals sent to transmission device 10C and then making a loop-back where protection channels are coupled to the working channels extending from transmission 10D. See column 4, lines 6-37. At the time the invention was made, it would have been obvious to implement loop-back formation in the system of Tounai. One would be motivated to do this for preventing faulty packets from being transmitted and determining location of fault.

Regarding claim **11**, Tounai discloses all the limitations of the claims except for a switching matrix receiving one of inbound working and protection channels, switching matrix operable to output selected one of inbound working and protection channel, maintaining connections regardless of which channel selected. Ishiwatari discloses transmission device (Figure 9A) receiving data from working optical fiber cables and transmitting data to other transmission devices and maintaining connections despite fault by use of loop-back formation as part of automatic protection scheme. See column 4, lines 6-37. At the time the invention was made, it would have been obvious to have switching matrix operable to receive and output one of

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inbound working and protection channels in the system of Tounai. One would be motivated to do this in order to transmit data despite failure of working channel.

### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Stalick U.S. 5,216,666 discloses 1:N ring-type signal protection apparatus.

Taketomi et al. U.S. 5,978,354 discloses optical transmission system and transmission line switching control method.

Fang et al. U.S. 6,504,963 discloses optical fiber protection switch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 703-305-8078. The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 703-308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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Melanie Jagannathan  
Patent Examiner  
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MJ  
March 7, 2003

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